

601 hrs. leaf completely dried.*

EXPERIMENT NO. 4.—A piece of wood was placed on the center of a leaf at 2 p. m., June 6th, 1879.—

- 60 min. no change.
 75 “ slight inflection of the submarginal tentacles.
 18 hrs. most of the submarginal and central tentacles were inflecting slowly.
 24 “ there was hardly any change from the last.
 38 “ the submarginal tentacles had passed through an angle of about 45 degrees; no change in the marginal tentacles; no secretion.
 73 “ all the tentacles were reflexed and natural.
 144 “ for some reason the leaf seems to show some signs of dying.
 175 “ leaf with secretion on the tentacles.
 185 “ leaf perfectly natural.

EXPERIMENT NO. 5.—Placed upon a leaf a minute larva of *Haltica chalytea* (about $\frac{1}{8}$ inch long), at 8 a. m., June 6th, 1879.—

- 30 min. all of the central tentacles were bent so as to touch the specimen.
 60 “ the submarginal tentacles had passed through an angle of 45 degrees.
 4 hrs. all of the submarginal tentacles were inflexed and many of them touched the specimen.
 10 “ nearly all the tentacles were inflexed, but only the submarginal and central ones touched the specimen.
 22 “ the tentacles showed signs of expanding.
 29 “ the edges of the leaf, submarginal, marginal and disk tentacles on one side inflected over the specimen.
 67 “ simply the submarginal and marginal tentacles nearest the specimen inflected and touching it.
 73 “ nearly all reflexed.
 94 “ all reflexed.
 171 “ leaf with secretion on the tentacles.
 178 “ perfectly natural.

A REFORMED SYSTEM OF TERMINOLOGY IN CRYPTOGAMS.—A paper was read lately before the British Association which suggests a very simple system of terminology for the reproductive organs in Cryptogams. The authors are A. W. Bennett and George Murray. An abstract of it is given in the Journal of Botany for November.

In the first place, a spore is defined as “any cell produced by ordinary process of vegetation (and not by a union of sexual elements) which becomes detached for the purpose of direct vegetative reproduction.” It may be the result of ordinary cell-division or of free cell-formation.

In the terminology of the male fecundating organs very little change is necessary. The cell or more complicated structure in which

*The molds mentioned in this experiment and in No. 1 seem to be peculiar to this plant. I have carefully examined them, and will describe them further on in a future article.

the male element is found is uniformly termed an *antheridium*; the ciliated fecundating bodies are termed *antherozoids*, those destitute of vibratile cilia *pollinoids*.

For the unfertilized female protoplasmic mass, it is proposed to retain the term *oosphere* and to establish from it a corresponding series of terms ending in *sphere*. The authors propose the syllable *sperm* as the basis of the various terms applied to all those bodies which are the immediate result of impregnation. The entire female organ before fertilization, whether unicellular or multicellular, is designated by a set of terms ending in *gonium*.

The following table exhibits concisely the proposed system in the different classes of Cryptogams:

I. ZYGOSPERMEÆ. *Zygonium* containing *Zygosphere*, fertilized *ZygospERM*.

II. OOSPERMEÆ. Male organ, *Antheridium* containing *Antherozoids* or *Pollinoids*.

Female organ, *Oogonium*, containing *Oosphere*, fertilized *Oosperm*.

III. CARPOSPERMEÆ. Male organ, *Antheridium* containing *Antherozoids* or *Pollinoids*.

Female organ, *Carpogonium* containing *Carposphere*, fertilized *Carposperm*.

IV. CORMOPHYTA. Male organ, *Antheridium*, containing *Antherozoids*.

Female organ, *Archegonium* containing *Archisphere*, fertilized *Archisperm*.

In the CARPOPHYCEÆ the process is complicated, being effected by means of a special female organ which may be called the *trichogonium*; the ultimate result of impregnation is a mass of tissue known as the *cystocarp*, within which are produced the germinating bodies which must be designated *carpospores*. Any one of these impregnated bodies which remains in a dormant condition for a time before germinating is a *hypnosperm*.

In the *Basidiomycetes*, *Ascomycetes* and some other classes, it is proposed to substitute the term *fructification* for "receptacle" for the entire non-sexual generation which bears the spores.—A. P. MORGAN.

NEW SPECIES OF FUNGI FOUND IN MARYLAND.—AGARICUS (TRICHOLOMA) CELLARIS.—Pileus convex, obtuse, then expanded, fleshy in the center, thin at the margin, silky, smooth, dry, white, more or less stained with umber at the disk; margin sometimes flexuous; lamellæ white, close but not crowded, adnexed, narrow, forked; stipe white, smooth, stuffed with cottony threads, equal, variously branched; spores white, .00024 by .0003 inches; odor and taste pleasant.

Plant five or six inches high, pileus three or four inches broad, stipe one inch thick; cæspitose.

I found this plant in Baltimore, on the fourth of October, growing on a brick wall in a dark cellar. The entire bunch measured more than one-half yard in diameter, and contained twenty-three pilei.